CAS 84-75-3

Substance name Di-n-Hexyl Phthalate

Toxicity

Di-n-hexyl phthalate is considered a reproductive toxicant by the state of California and the National Toxicology Program.[1,2] Di-n-hexyl phthalate reduced fertility in both male and female rodents, reduced survival of offspring after birth, and caused severe degenerative changes in the seminiferous epithelium of male rats.[1,2] There is also evidence that exposure *in utero* can damage the male reproductive system, cause fetal growth retardation, malformations, and fetal loss.[1,3]

Exposure

Di-n-Hexyl phthalate is mainly a component of other phthalates. Phthalates are used primarily as plasticizers to add flexibility to plastics. Available information indicates that DnHP is manufactured in relatively small amounts but occurs in industrially important phthalates such as diisohexyl phthalate (up to 25%).[1] Commercial phthalate substances containing DnHP may be added to the polyvinyl chloride (PVC) utilised in the manufacture of notebook covers, toys, and shoes.[1,4] We did not locate biomonitoring data nor could we find testing results that reported its presence in children's products.

References

1. US Department of Health and Human Services, National Toxicology Program, Center for the Evaluation of Risks to Human Reproduction (CERHR) Monograph on the potential human reproductive and developmental effects of Di-*n* -Hexyl Phthalate (DnHP), NIH Publication No.03-4489. May 2003. http://cerhr.niehs.nih.gov/evals/phthalates/dnhp/DnHP_Monograph_Final.pdf
2. OEHHA, Reproductive and Cancer Hazard Assessment Branch, Proposition 65 Maximum Allowable Dose Level (MADL) for Reproductive Toxicity for Di-*n*-Hexyl Phthalate (DnHP) March 2008 http://oehha.ca.gov/prop65/law/dnhpfinal_010109.html
3. Saillenfait, AM et al. (2009) Differential developmental toxicities of di-n-hexyl phthalate and dicyclohexyl phthalate administered orally to rats. *J Applied Toxicology* Vol 29 (6): 510-521.
4. Australian Department of Health and Aging, Existing Chemical Hazard Assessment Report for Di-n-hexyl Phthalate, June 2008. http://www.nicnas.gov.au/Publications/CAR/Other/DnHP%20hazard%20assessment.pdf